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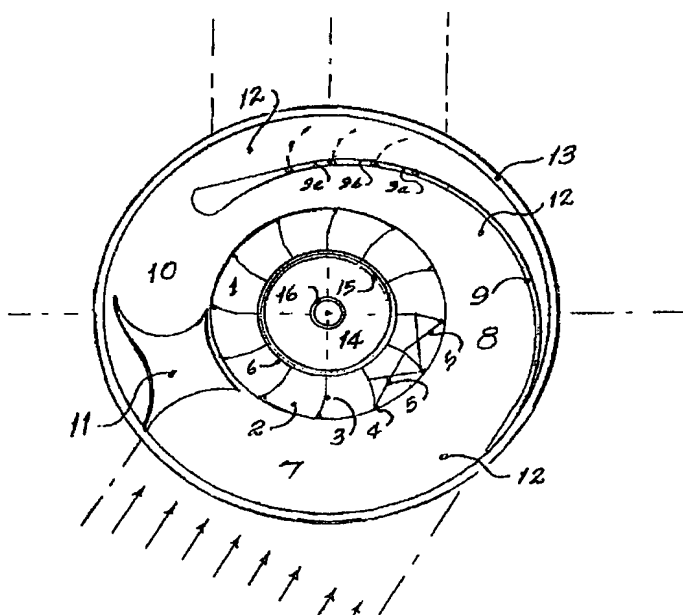
Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only

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Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: WIND POWERED TURBINE ENGINE-HORIZONTAL ROTOR CONFIGURATION



(57) Abstract: A wind powered turbine engine comprising an internalized containment and control chamber, intake enhancement, vacuum induction exhaust port and horizontally rotating rotor. The turbine functions similarly to a steam or gas turbine engine. The radius of the control chamber decreases progressively as it curves around the periphery of the turbine rotor in the manner of a spiral.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference	FOR FURTHER ACTION		See item 4 below
International application No. PCT/CA2004/002215	International filing date (<i>day/month/year</i>) 17 December 2004 (17.12.2004)	Priority date (<i>day/month/year</i>) 31 December 2003 (31.12.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant JOHNSON, Bud, T.,J.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input checked="" type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70		Date of issuance of this report 03 July 2006 (03.07.2006) Authorized officer Athina Nickitas-Etienne e-mail: pt04@wipo.int
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
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CALGARY, Alberta
Canada, T2M 0K3

PTO4

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REC'D 06 APR 2005

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing 31 March 2005 (31-03-2005)
(day/month/year)

Applicant's or agent's file reference

FOR FURTHER ACTION
See paragraph 2 below

International application No.

PCT/CA2004/002215

International filing date (day/month/year)

17 December 2004 (17-12-2004)

Priority date (day/month/year)

31 December 2003 (31-12-2003)

International Patent Classification (IPC) or both national classification and IPC
IPC⁷: F03D-3/00, F03D-11/00

Applicant

JOHNSON, BUD T. J.

1. This opinion contains indications relating to the following items :

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the opinion |
| <input type="checkbox"/> Box No. II | Priority |
| <input checked="" type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement. |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
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Authorized officer

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International application No.
PCT/CA2004/002215

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statement that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments :

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CA2004/002215

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of :

☐ the entire international application

☒ claim Nos. 6-9

because:

☐ the said international application, or the said claim Nos.

relate to the following subject matter which does not require an international preliminary examination (*specify*) :

☒ the description, claims or drawings (*indicate particular elements below*) or said claim Nos. 6-9
are so unclear that no meaningful opinion could be formed (*specify*) :

Claims 6 to 9 could not be searched because no feature can be found in aforesaid claims as they are directed to a desired result only, without defining any physical properties or configuration required for obtaining such a result.

☐ the claims, or said claims Nos. are so inadequately supported
by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the
Administrative Instructions in that :

the written form ☐ has not been furnished

☐ does not comply with the standard

the computer readable form ☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the
technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CA2004/002215

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-5</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-5</u>	NO
Industrial applicability (IA)	Claims <u>1-5</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations :

D1: US 4127356 A (MURPHY, R. D.) 28 November 1978 (28-11-1978)
D2: US 4070131 A (YEN, J. T.) 24 January 1978 (24-01-1978)
D3: US 4140433 A (ECKEL, O. C.) 20 February 1979 (20-02-1979)

Novelty (N)

Claims 1, 2, 4 and 5 do not comply with PCT Article 33(2). D1 and D2 disclosed the claimed subject matter before the claim date. D1 discloses a wind motor machine comprising an impeller (28) located within a housing (30) and a scroll (38) having a spiral configuration, wherein all wind which enters through a throat (40) of the housing is directed toward and utilized for rotating the impeller (fig. 3; col. 2, lines 46-68). Similarly, D2 discloses a tornado-type wind turbine (10) comprising turbomachinery (82) having a set of blades (86) and located within a convoluted chamber (63) enclosed by tower walls (61) defining a spiral cross-section, wherein wind (W) enters into the convoluted chamber through a vertical inlet (62) thereby inducing a vortex flow regime and driving the turbomachinery blades (fig. 3; col. 6, lines 9-39; abstract). It is considered that the alleged inventive features claimed in claims 1, 2, 4 and 5 were well known from persons skilled in the art before the claim date. Therefore, the subject matter of claims 1, 2, 4 and 5 lacks novelty.

Claims 1 to 3 does not comply with PCT Article 33(2). D3 disclosed the claimed subject matter before the claim date. D3 discloses a power-generating wind-driven turbine apparatus comprising an outer shroud (2) forming a wind gathering venturi and a nose cone (12) providing a streamlined wind collecting inlet designed so that the air stream is contracted to increase its velocity through the turbine blades (8), combined with an exit section designed to exhaust the air stream with a minimum of turbulence (figs 1 & 3; col. 2, line 47 - col. 12, line 2). It is considered that the alleged inventive features claimed in claims 1 to 3 were well known from persons skilled in the art before the claim date. Therefore, the subject matter of claims 1 to 3 lacks novelty.

Inventive Step (IS)

Claims 1 to 5 do not comply with PCT Article 33(3). Aforesaid claims were objected to for being known in the art and involving no new or inventive features. Accordingly, the subject matter of claims 1 to 5 does not involve an inventive step.

Industrial Applicability (IA)

The subject matter of claims 1 to 5 is considered to be industrially applicable and thus fulfills the requirements of PCT Article 33(4).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CA2004/002215

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted :

Abstract:

The abstract does not comply with PCT Rule 8.1. The abstract shall be concise (maximum 250 words, preferably 50-150 words) and shall not contain statements on the alleged merits of the claimed invention. In addition, each technical feature mentioned in the abstract and illustrated by a drawing should be followed by a reference sign, placed between parentheses.

Description:

The description does not comply with PCT Rule 5.1. The description shall start with the same title that appears in the request and shall also specify the technical field to which the invention relates.

Obvious errors:

The International Searching Authority has discovered in the international application what appears to be obvious errors, as specified hereafter, and may be due to typographical or clerical errors: the expression "the said" (claims 4, 5 and 8; page 5, line 12) is redundant and should read either "the" or "said". Similarly, the expression "its said" (claim 6) is redundant and should read either "its" or "said".

Box No. VIII **Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made :

Claims 1 to 9 do not comply with PCT Rule 6.3(a). The claims must explicitly state all of the features for which protection is being sought. However, each one of aforesaid claims appear to be drafted as independent claims, each containing different inventive concept and features.

Claim 1 does not comply with PCT Article 6. The language of aforesaid claim is broader in scope than the teaching of the description.

Claims 2 to 5 do not comply with PCT Article 6. The expressions "assuring that [...] rotor blades" (claim 2), "to gain [...] driven rotor" (claim 3), "increasing wind speed [...] throughput" (claim 4) and "with the shape [...] turbine rotor" (claim 5) are directed to a desired result only, rather than to the physical configuration required to achieve such a result.

Claim 3 does not comply with PCT Article 6. The use of the expression "greater mechanical advantage" creates ambiguity in the claims.

Claims 6 to 9 do not comply with PCT Article 6 because only the desired result obtained with the wind turbine engine is stated, rather than the physical configuration required to achieve this result.

Claims 6 and 9 do not comply with PCT Article 6. The use of the terms "some" (claim 6) and "useable" (claim 9) creates ambiguity in the claims.

Claim 7 does not comply with PCT Article 6. The use of the expression "the basic functions" create ambiguity in the claims. Furthermore, a restriction, such as "with the exception of heat" found in claim 7, is objectionable in that claims shall set forth what the invention is or does, and not what it isn't or does not do.

Claims 8 and 9 do not comply with PCT Article 6. The inclusion of "may" and "can" causes ambiguity, because these terms presume that the features that follow are optional.